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(54) FLUID PUMPING AND BIOREACTOR **SYSTEM**

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(57)ABSTRACT

A fluid pumping and bioreactor system including at least two cassettes, at least one storage reservoir, at least one bioreactor, at least one manifold including valve modules, and tubing to connect the cassettes to the storage reservoir and the bioreactor. The cassettes can include pumps, valves, and fluid conduits and can be communicatively connected to the at least one manifold. The bioreactor can include an adapter and fluid conduits extending through the adapter from the exterior of the bioreactor to the interior of the bioreactor. System and method for generating a tissue for transplant by decellularizing and recellularizing a supplied tissue.

